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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,732	12/05/2001	Jason A. Davidson	10559-547001	6111

			EXAMINER
26529	7590	04/27/2006	DANG, THANH HA T

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ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr>
<td rowspan="2">Office Action Summary</td>
<td>Application No.</td>
<td>Applicant(s)</td>
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<td>10/008,732</td>
<td>DAVIDSON ET AL.</td>
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<td>Examiner</td>
<td>Art Unit</td>
</tr>
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<td>Thanh-Ha Dang</td>
<td>2163</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 March 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10 and 21-26</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-10 and 21-26</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date: _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152).

6)☐ Other: _____.

DETAILED ACTION

1. Claims 1-10 and 21-26 are rejected in this Office Action.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 March 2006 has been entered.

Response to Amendment

3. Receipt of Applicant's Amendment filed 23 March 2006 is acknowledged.

Specification

4. The disclosure is objected to because of the following informalities:

• Paragraph [0018]: "... **Structure** Query Language ..." should be **Structured**. Correction is required.

5. The Abstract of the Disclosure is objected to because of the following informality:

"... **Structure** Query Language ..." should be **Structured**.

Correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 21 recites a machine-readable medium, which is not limited to tangible embodiments. In view of Applicant's disclosure, Specification, page 18 [0054] ("machine-readable medium refers to any media"), the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., memory devices/units) and intangible embodiments (e.g., signals). As such, the claim is not limited to statutory subject matter and is therefore non-statutory. It is suggested that one way to overcome this rejection would be to recast the "machine-readable medium" as a "machine-readable *storage* medium".

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. Claim 1 recites " ... tables **and/or**

attributes ...": **and/or** rendered the claim indefinite.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

Claims 1-4, 6-10 and 21-26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent No. 6,584,459 issued to Chang et al. ("Chang"),

and further in view of U.S. Patent No. 6,721,727 issued to Chau et al. ("Chau").

As to **Claim 1**, *Chang teaches* a method comprising:

*   designating tags that specify data semantics to identify tables and/or

    attributes to be used in storing information in a text file using a relational

    database model *(Figures 8, 9 and 11 illustrates the designating tags to be*

    used in storing information in a text file using a relational database model);

*   *Chang does not explicitly teach* storing the text file with the tags in a

    memory device; and accessing the stored text file as a relational database

    via a programming interface that includes a procedure call format

    representing a declarative statement. However,

Chau teaches storing the text file with the tags *(Figure 2, block208)* in a memory device *(Figures 1, block106, column 4, line20)*; and accessing the stored text file as a relational database via a programming interface *(Figure 2, block202, column 6, line 4)* that includes a procedure call format representing a declarative statement *(Figures 8-9, block904, column 49, lines 9-22)*.

It would have been obvious to one of ordinary skill in the data processing art at the time of the invention to combine document access definition identifying one or more relational tables and columns teaching of Chau with database extender for storing, querying, and retrieving structured documents teaching of Chang to provide method and system which implement documents as text-file based relational database.

As to **Claim 2**, *Chang in combination with Chau teaches* the tags comprise data domain generic tags *(Chang, Figures 8 and 9 illustrate the tags which comprise data domain generic tags)*.

As to **Claim 3**, *Chang in combination with Chau teaches* the tags comprise data domain specific tags *(Chang, Figure 11 illustrates the tags which comprises data domain specific tags)*.

As to **Claim 4**, *Chang in combination with Chau teaches* the procedure call format specifies a plurality of inputs of a character string type for a procedure *(Chang, column 21, lines 40-55 and column 23, lines 5-15)*.

As to **Claim 6**, *Chang in combination with Chau teaches* the procedure call format supports one or more relational database operations, which include a select operation, an update operation, an add operation, an insert operation, and a delete operation *(Chau, column 32, lines 20-40)*.

As to **Claim 7**, *Chang in combination with Chau teaches* the represented declarative statement corresponds to a relational database query protocol standard *(Chang, column 6, lines 38-45 and column 21, lines 40-55)*.

As to **Claim 8**, *Chang in combination with Chau teaches* the text file comprises plain text in American Standard Code for Information Interchange format *(Chau, column 12, lines 60-67 and column 13, lines 1-35)*.

As to **Claim 9**, *Chang in combination with Chau teaches* the plain text conforms to version 1.0 of Extensible Markup Language *(Chau, column 18, lines 10-40)*.

As to **Claim 10**, *Chang in combination with Chau teaches* the relational database query protocol standard is International Standard 9075:1992 *(Chang, column 6, lines 38-41. The protocol standard is cited in specification as prior art example (page 5 [0018]); see reference in U.S.Patent No.5,956,706 background section)*.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,584,459 issued to Chang et al. ("Chang"), further in view of U.S. Patent No. 6,721,727 issued to Chau et al. ("Chau") as applied to Claim 1

above, and further in view of Pub. No. US2002/0099735 issued to Schroeder et
al. ("Schroeder").

As to **Claim 5**:

Chang in combination with Chau teaches the elements of Claim 1 as
stated above.

Chang in combination with Chau do not explicitly teach the inputs
comprise a subset of the tags, and output data from the procedure does not
include the tags.

Schroeder teaches the inputs comprise a subset of the tags *(Figure 3a,
block302)*, and output data from the procedure does not include the tags *(Figure
3a, block306 and 308)*.

It would have been obvious to one of ordinary skill in the data processing
art at the time of the invention to combine translating and transforming data file
teaching of Schroeder with document access definition identifying one or more
relational tables and columns teaching of Chau and database extender for
storing, querying, and retrieving structured documents teaching of Chang to
provide method and system which implement documents as text-file based
relational database.

Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable
over U.S. Patent No. 6,584,459 issued to Chang et al. ("Chang"), and further in
view of U.S. Patent No. 6,721,727 issued to Chau et al. ("Chau").

As to **Claim 21**, *Chang teaches* a machine-readable medium embodying information indicative of instructions for causing one or more machines to perform operations comprising:

- making information stored in a memory device as a text file comprising tags specifying data semantics corresponding to a relational database model available through a procedure call interface *(Figures 1-3, 7-9 and 11, column 3, lines 48-60; column 5, lines 14-49 and lines 55-67, column 6, lines 1-15 wherein illustrate a text file comprising tags specifying data semantics corresponding to a relational database model available through a procedure call interface (e.g. illustrating code in column 23, lines 25-39)*;

- receiving from an application a relational database request using the procedure call interface *(Figures 1-3 and 7, column 7, lines 27-38)*;

- *Chang does not explicitly teach* accessing the stored text file in response to the request as a relational database via a programming interface that includes a procedure call format representing a declarative statement; and returning data from the text file corresponding to the relational database request. However,

Chau teaches accessing the stored text file in response to the request as a relational database via a programming interface *(Figure 2, block202, column 6, line 4)* that includes a procedure call format representing a declarative statement *(Figures 8-9, block904, column 49, lines 9-22)*; and

returning data from the text file corresponding to the relational database request *(column 26, lines 31-44).*

It would have been obvious to one of ordinary skill in the data processing art at the time of the invention to combine document access definition identifying one or more relational tables and columns teaching of Chau with database extender for storing, querying, and retrieving structured documents teaching of Chang to provide method and system which implement documents as text-file based relational database.

As to **Claim 22**, *Chang in combination with Chau teaches* the procedure call interface comprises a high-level language procedure call having a procedure call format representing a declarative statement *(Chau, column 23, lines 35-50).*

As to **Claim 23**, *Chang in combination with Chau teaches* the procedure call interface supports one or more relational database operations, which include a select operation, an update operation, an add operation, an insert operation, and a delete operation *(Chau, column 32, lines 20-40).*

As to **Claim 24**, *Chang in combination with Chau teaches* the procedure call has a format corresponding to a relational database query protocol standard *(Chang, column 6, lines 38-45 and column 21, lines 40-55).*

As to **Claim 25**, *Chang in combination with Chau teaches* the text file comprises plain text in American Standard Code for Information Interchange format *(Chau, column 12, lines 60-67 and column 13, lines 1-35),* and wherein

the plain text conforms to version 1.0 of Extensible Markup Language *(Chau,*

column 18, lines 10-40).

As to **Claim 26**, *Chang in combination with Chau teaches* the relational

database query protocol standard is International Standard 9075:1992 *(Chang,*

column 6, lines 38-41. The protocol standard is cited in specification as prior art

example (page 5 [0018]); see reference in U.S.Patent No.5,956,706 background

section).

Response to Arguments

9. Applicant's arguments with respect to claims 1 and 21 have been considered but

are moot in view of the new ground(s) of rejection.

Citation of Pertinent Prior Art

10. The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

- Binding et al. (US Patent No. 7,024,413), "Method of Externalizing Legacy

  Database in ASN.1-Formatted Data into XML Format".

- Chau et al. (US Patent No. 6,643,633), "Storing Fragmented XML Data Into a

  Relational Database by Decomposing XML Documents with Application Specific

  Mappings".

- Michele C. Lee (Pub. No US2002/0147746), "Delivering Outpu XML with

  Dynamically Selectable Processing".

- Fujishima et al. (US Patent No. 6,829,614), "Scrambling Method of the Data Files".

- Burkett et al. (US Patent No. 6,671,853), "Method and System for Selectively Streaming Markup Language Documents".
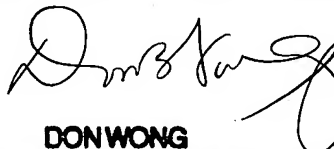
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Ha Dang whose telephone number is 571-272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thanh-Ha Dang
Examiner
Art Unit 2163

DON WONG
SUPERVISORY PATENT EXAMINER